

REMARKS

Reconsideration and allowance of the above-identified application in view of the following remarks are respectfully requested.

Claims 71-102 are pending in the application. Claims 96-102 have been withdrawn from consideration.

Claim Rejection – 35 USC § 102

Claims 71-95 are rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi et al. (U.S. Patent No. 5,097,352). Applicants respectfully traverse this rejection for at least the following reasons.

Claims 71-73, 75-77 and 84-89 recite, *inter-alia*, “an optical system comprising an optical surface which has no axis of rotational symmetry and an optical element which has a variable optical characteristic...”

By providing an optical system with an optical surface that has no axis of rotational symmetry, it allows, for example, one to correct aberrations of the optical system (see, for example, page 58, lines 2 through 13, of the specification).

In contrast, Takahashi et al. merely discloses an optical system with a prism 27 (shown in Figure 8 in Takahashi et al.), an optical system with prisms 31 and 33 (shown in Figure 11 in Takahashi et al.), an optical system with prisms 35 and 36 (shown in Figure 12 in Takahashi et al.) or an optical system with prisms 39 and 40 (shown in Figure 13 in Takahashi et al.). These prisms have planar optical surfaces and each of these planar surfaces has at least one axis of rotational symmetry. Consequently, none of the prisms of Takahashi et al., has an optical surface having no axis of rotational symmetry.

Furthermore, each of lenses 15 and 17 (shown in Figures 8, 12-18 in Takahashi et al.) and the liquid crystal lens 34 (shown in Figures 12-18 in Takahashi et al.) of the optical system of Takahashi et al. has an axis of rotational symmetry. Moreover, in Takahashi et al. the liquid crystal stop 34 comprises liquid crystal cell 7 which is bent to be symmetrical with regard to the optical axis (see col. 8, lines 15-18 in Takahashi et al.). Thus, the stop 34 of Takahashi et al. is symmetrical with regard to the optical axis.

Consequently, the optical system of Takahashi et al. does not use an optical surface having no axis of rotational symmetry.

Therefore, Takahashi does not disclose, teach or suggest the subject matter recited in claims 71-73, 75-77 and 84-89.

Amendment

Claim 74 recites, *inter-alia*, "an optical system comprising a reflective type optical element which has an optical surface having no axis of rotational symmetry and has a variable optical characteristic..."

In contrast, the liquid crystal lens (the optical element having a variable characteristic) of the optical system of Takahashi et al. has an optical surface which is rotationally symmetrical with regard to an optical axis. In addition, the optical surface of the liquid crystal lens of Takahashi et al. is not a reflective type optical surface but simply a transmissive type optical surface.

Therefore, Takahashi et al. does not disclose, teach or suggest a reflective type optical element which has an optical surface having no axis of rotational symmetry and has a variable optical characteristic, as recited in claim 74.

Consequently, Applicants respectfully submit that claims 71-77 and 84-89, and claims 78-83 which are dependent from any one of claims 72-77 and claims 90-95 which are dependent from any one of claims 84-89, are patentable. Thus, it is respectfully requested that the rejection of claims 71-95 under §102 be withdrawn.

Amendment

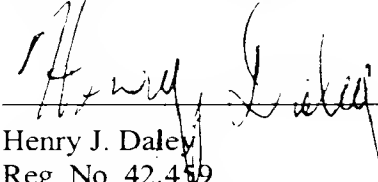
CONCLUSION

In view of the foregoing, the claims are now in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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